

REMARKS

Claims 1-4, 6-12, 14-20 and 22-24 are pending. Claims 1-4, 7, 9-12, 15, 17-20 and 23 have been amended as described below. As a result of the amendments to each of the independent claims 1, 9 and 17, claims 5, 13 and 21 have been canceled without prejudice nor disclaimer of subject matter. Reconsideration is respectfully requested in light of the amendments and remarks made herein.

Claims 1-5, 7-13, 15-21, 23 and 24 have been rejected under 35 U.S.C. § 102(a) based on U.S. patent 6,160,913 to *Lee et al. (Lee)*, while claims 6, 14 and 22 stand rejected under 35 U.S.C. § 103(a) based on *Lee*.

Lee is directed to a halftone dot detection and removal process that is applied to a thresholded image to generate a halftone region map. Halftone pixels are then removed, and the resulting image is filtered with a binary median filter. In the detection portion of the process, pixels are classified as either halftone or non-halftone using a 5×5 local moving window. Reclassification is then performed using a 7×7 local moving window.

Applicants' invention is different. First, applicants' method does not involve classifying pixels as halftone or non-halftone. Rather, it involves classifying pixels as either screen or non-screen, which means determining whether a particular pixel is part of a predetermined periodic pattern. This is different than determining whether a pixel is a halftone or not. This distinction is further emphasized by the amendment to the classifying step/instruction in each of claims 1 and 17 and by the amendment regarding the function of the screen pixel identifier in claim 9.

Moreover, while *Lee's* method includes a reclassification step, not only is it for a different determination (halftone/non-halftone), but the way in which *Lee's* reclassification is done differs considerably from the way in which applicants' screen/non-screen pixel check is carried out. *Lee* uses a 7×7 local moving window to reclassify pixels as halftone or non-halftone. In contrast, in applicants' invention as claimed in each of claims 1, 9 and 17, a pixel classification is checked by examining pixels in a predetermined surrounding

area of that pixel. As each of these claims now states, this is carried out by applying a two-dimensional mask that is divided into a plurality of quadrants, the center of which is common to each of the quadrants. Dividing the two-dimensional mask into overlapping quadrants allows the mask to perform accurately both inside screen regions and at the borders and corners of such regions. *Lee* does not disclose nor teach such a classification check step.

Accordingly, it is respectfully submitted that each of claims 1, 9 and 17 is patentably distinguishable over *Lee*.

With respect to the dependent claims, each of dependent claims 2-4, 7, 10-12, 15, 18-20 and 23 has been amended simply to make it consistent with the amendments made to its corresponding independent claim. Each of these dependent claims, as well as each of dependent claims 6, 8, 14, 16, 22 and 24 presented without amendment, is patentable for at least the same reasons as its corresponding independent claim. A further distinction between applicants' invention as set forth in each of claims 2, 10 and 18 and the process of *Lee* is that applicants' pixel classifying is done by applying a one-dimensional mask. *Lee* uses a 5×5 local moving window to perform halftone/non-halftone classification.

In view of the foregoing amendments and remarks, applicants respectfully request favorable reconsideration of the present application.

Respectfully submitted,



Michael T. Gabrik
Registration No. 32,896

Please address all correspondence to:

Epson Research and Development, Inc.
Intellectual Property Department
150 River Oaks Parkway, Suite 225
San Jose, CA 95134
Phone: (408) 952-6000
Facsimile: (408) 954-9058
Customer No. 20178

Date: February 20, 2004